

PROJECT TITLE : PILOT-PLANT OPERATIONS
PERIOD COVERED : AUGUST 31 - OCTOBER 23 1981
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1. EQUIPMENT

1.1. Rotocell Extractor

Due to infection problems during the fermentation of the strip-extract (1), the feedwater temperature of the strip-extraction was again increased to about 80°C. To maintain this temperature in the extractor, heat exchangers were ordered. They will be installed on some of the sections of the apparatus through which the extract is pumped.

1.2. Fermenter

Due to failure of the sealing liquid pump, the seal of the foam-breaker "Fundafom" had to be replaced. The automatic anti-foam injection system had to be checked again by the FTR Electronic Department.
We were also able to solve some problems which arose with pO_2 - measuring on our own.

1.3. Centrifuge

Since September two failures of the centrifuge motor have been observed. Fortunately a spare motor was available on both occasions.
Nevertheless, the supplier of another type of centrifuge has been contacted. Trials will be performed with one of these centrifuges in November.

2. RECYCLING OPERATION (2)

After about two weeks of closed loop operation, enormous clogging problems were encountered. In particular, the sterilization line of the extract and the tubes of the pumping system of the Rotocell extractor were found to be badly clogged with deposits. Analyses of the deposit will show which parameters such as acid, pH, feedwater temperature, etc have to be changed in order to avoid clogging during long periods of recycling.

3. DRYING OF STRIPS

By using a laboratory air dryer, it is now possible to dry small quantities of extracted strips without breaking them too much. About 13 kg of strips were dried in this way and used in LEAR cigarette No. 5-17-3.

4. REFERENCES

1. Ruf-C : Monthly Report, Nitrate-Reduction by Controlled Fermentation, September 1981
2. Schulthess-D : Monthly Report, Nitrate-Reduction by Controlled Fermentation, October 1981

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